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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/362,995	07/30/1999	FEDERICO CANINI	3556-3	7555

7590

06/20/2003

NIXON & VANDERHYE P C
1100 NORTH GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201

EXAMINER

VILLECCO, JOHN M

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/362,995

Applicant(s)

CANINI, FEDERICO

Examiner

John M. Villecco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 4 and 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the European Patent Office on October 23, 1998. It is noted, however, that applicant has not filed a certified copy of the 98830636.1 application as required by 35 U.S.C. 119(b).
2. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.
3. For the reasons stated above, applicant is not given the benefit of foreign priority.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-8 and 10-19 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. **Claim 1** recites the limitation "the higher exposure time" in lines 15-16. There is insufficient antecedent basis for this limitation in the claim.
7. **Claim 10** recites the limitation "the lower exposure time" in line 13. There is insufficient antecedent basis for this limitation in the claim.

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8. **Claim 18** recites the limitation "the higher exposure time" in line 48. There is insufficient antecedent basis for this limitation in the claim.
9. **Claim 19** recites the limitation "the lower exposure time" in line 48. There is insufficient antecedent basis for this limitation in the claim.
10. **Claims 2-8 and 11-17** are rejected based upon their dependence to claims 1 and 10, respectively.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. **Claims 1-3, 5-8, 10-12, and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Bell et al. (U.S. Patent No. 6,486,915).**

13. Regarding **claim 1**, Bell discloses a method for determining a final exposure setting automatically without the use of a light metering circuit. The methodology includes setting an integration time of the sensor (112) to an initial value in a range of values (col. 5, line 10, and Figure 3). An image is captured by the sensor (112) and luminosity is analyzed using a histogram. The data is then evaluated and compared to an aim mean value for the histogram. See column 5, line 55 to column 6, line 44. The aim mean is interpreted to be the global

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threshold level. A new exposure time is selected and the previous steps are repeated until the optimal exposure time is generated. See column 7, lines 12-37.

14. As for *claim 2*, as mentioned above, it is determined whether the image value is greater than the aim mean. If an overexposure is inferred then the exposure time is decreased and the process is started over (col. 6, lines 47-51). It is obvious that the system would stop if it reached a limit of the table. At this point the system can now longer adjust the exposure time, therefore, it would be obvious to stop and use the exposure time at the extremes of the table.

15. With regard to *claim 3*, as mentioned above, it is determined whether the image value is greater than the aim mean. If an overexposure is inferred then the exposure time is decreased and the process is started over (col. 6, lines 47-51). It is obvious that the system would stop if it reached a limit of the table. At this point the system can now longer adjust the exposure time, therefore, it would be obvious to stop and use the exposure time at the extremes of the table.

16. Regarding *claim 5*, Bell discloses that after the image data is analyzed and it is determined that the image is over- or under-exposed, the exposure time is adjusted and new image data is acquired and analyzed.

17. As for *claim 6*, Bell discloses that when it is determined that an image is underexposed the exposure time is increased. (col. 5, lines 63-65).

18. With regard to *claim 7*, Bell discloses the operation of the exposure method in col. 7, lines 11-37 and Figure 3. When an overexposed scene is determined a new exposure is determined and binary chop is performed. This binary chop results in a new range of values found among the M values of the first range. The process is then repeated until an optimal exposure is found.

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19. Regarding **claim 8**, Bell discloses that the system determines if the area's dynamic range is too small to capture the whole image. The sample window is reduced to that it is optimal to determine best exposure setting. See column 5, lines 23-42.

20. **Claim 10** is considered substantively equivalent to claim 1 with the exception that the claim language includes a lower global threshold level representative of an condition of underexposure and adjusting the optimum exposure time equal to the lower exposure time. It is noted that the global threshold level is considered the aim mean as pointed out in claim 1. The fact that applicant calls the threshold level different things is of no consequence. The aim mean of Bell can still be read on the claim. Bell operates to determine an underexposure and adjusts the exposure values accordingly. Claim 10 was analyzed and discussed in claim 1. Please see the discussion of claim 1, along with the differences discussed above.

21. **Claim 11** is considered substantively equivalent to claim 2 with the added differences noted in claim 10.

22. **Claim 12** is considered substantively equivalent to claim 3 with the added differences noted in claim 10.

23. **Claim 14** is considered substantively equivalent to claim 5 with the added differences noted in claim 10.

24. **Claim 15** is considered substantively equivalent to claim 6 with the added differences noted in claim 10.

25. **Claim 16** is considered substantively equivalent to claim 7 with the added differences noted in claim 10.

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26. **Claim 17** is considered substantively equivalent to claim 8 with the added differences noted in claim 10.

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. **Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (U.S. Patent No. 6,486,915) in view of Dong (U.S. Patent No. 5,734,426).**

29. As for **claim 9**, Bell discloses a method for determining a final exposure setting automatically without the use of a light metering circuit. The methodology includes setting an integration time of the sensor (112) to an initial value in a range of values (col. 5, line 10, and Figure 3). An image is captured by the sensor (112) and luminosity is analyzed using a histogram. The data is then evaluated and compared to an aim mean value for the histogram. See column 5, line 55 to column 6, line 44. The aim mean is interpreted to be the global threshold level. A new exposure time is selected and the previous steps are repeated until the optimal exposure time is generated. See column 7, lines 12-37.

Bell, however, fails to disclose comparing the image with a global threshold level representative of a condition of the image where one of the extremes has been exceeded. Dong on the other hand, discloses a method automatic exposure control that checks whether or not the pixel signal has exceed an upper (VHIGH) or lower threshold (VLOW) and makes a tally (NW

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or NB). These tallies are then compared to a global threshold (KD) to determine whether or not to raise or lower an exposure time. Obviously, every time an image is taken the exposure will be optimized. By comparing the image signal level to an extreme before a global threshold level the system can avoid the complicated processing that takes place with developing a histogram, as in Bell. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use extremes before a global threshold level so complicated processing is avoided.

Allowable Subject Matter

30. Claims 4 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

31. The following is a statement of reasons for the indication of allowable subject matter:

Regarding ***claims 4 and 13***, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that the step of analyzing includes generating the luminosity of each pixel and determining if each pixel is greater (or smaller) than the global threshold value representative of overexposure (or underexposure), if a positive result is return, accumulating the contribution of the current pixel and iteratively repeating the previous steps, and if a negative result is returned, releasing the current pixel and repeating the steps, and finally, verifying if the sum of the contributions is greater than the global threshold value.

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32. Claims 18 and 19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

33. The following is a statement of reasons for the indication of allowable subject matter:

34. Regarding *claim 18*, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that the step of analyzing includes generating the luminosity of each pixel and determining if each pixel is greater than the global threshold value representative of overexposure; if a positive result is return, accumulating the contribution of the current pixel and iteratively repeating the previous steps, and if a negative result is returned, releasing the current pixel and repeating the steps, and finally, verifying if the sum of the contributions is greater than the global threshold value.

35. As for *claim 19*, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that the step of analyzing includes generating the luminosity of each pixel and determining if each pixel is smaller than the global threshold value representative of underexposure, if a positive result is return, accumulating the contribution of the current pixel and iteratively repeating the previous steps, and if a negative result is returned, releasing the current pixel and repeating the steps, and finally, verifying if the sum of the contributions is greater than the global threshold value.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

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(703) 308-6306 (For either formal or informal communications intended for entry. For informal or draft communications, please label **"PROPOSED"** or **"DRAFT"**)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (703) 305-1460.

The examiner can normally be reached on Monday through Thursday from 7:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service desk whose telephone number is (703) 306-0377.

JMV
6/4/03


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600